

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Kasper KOKKONEN et al. Confirmation No.: 7370

Serial No.: 10/519,955 Group Art Unit: 1793

Filed: December 30, 2004 Examiner: Jie Yang

For: METHOD AND ARRANGEMENT FOR FEEDING AN ANODE INTO A  
SMELTING REACTOR

PETITION FROM REQUIREMENT FOR RESTRICTION UNDER 37 C.F.R. §1.144

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 1.144, applicants file this petition for review of the Restriction Requirement for the subject application. Applicants set forth the relevant facts and points below.

On August 24, 2007, a Requirement for Restriction under 35 U.S.C. § 121 and 35 U.S.C. § 372 was mailed to applicants. In the Restriction Requirement, the Examiner contended that the application contains inventions that are not linked so as to form a single general inventive concept under PCT Rule 13.1, and required election of a single invention to which the claims must be restricted. The Examiner specifically set forth two groups of claims, which allegedly do not relate to a single inventive concept:

- Group I (claims 1-13), drawn to an apparatus for feeding an anode into a metallurgical smelting reactor; and
- Group II (claims 14-18), drawn to a method of feeding an anode into a metallurgical smelting reactor.

The requirement for restriction was based on the contention that the two groups allegedly lack the same or corresponding special technical features under PCT Rule 13.2. The Examiner set forth the following reasons on page 2 of the August 24, 2007 Restriction Requirement:

They [i.e., the two groups] lack the same of [sic] unity a posteriori because the common feature of “feeding an anode into a metallurgical smelting reactor” is known in the art. Ikoma et al (US 5,695,892, thereafter ‘892) discloses a metallurgical furnace installation for use in copper-smelting process is disclosed [sic] which includes a metallurgical furnace, [and] a charging assembly for introducing anode scrap into the furnace through an opening (Abstract of ‘892).

In the September 17, 2007 response, applicants elected, with traverse, the claims of Group I. Applicants requested reconsideration of the restriction requirement on the grounds that the two groups of claims do have the same or corresponding technical features, and that these corresponding technical features are not known in the art. Specifically, the applicants set forth the following rationale:

- 1) In contrast to the Examiner’s contention, “feeding an anode into a metallurgical smelting reactor” is not the only common feature of the two groups of claims. The two groups of claims also have in common the technical features of a “bending element” and a “radius of curvature” describe in the instant specification (page 2 of the September 17, 2007 response).
- 2) The common technical features of a “bending element” and a “radius of curvature” are not known in the art. This assertion is corroborated by the International Preliminary Report on Patentability (“IPRP”) issued by the International Searching Authority for corresponding International Application No. PCT/FI03/00465, which stated that the ‘892 patent “does not show or indicate in any way that the anodes are bent to a certain radius of curvature as stated in claims 1 and 14. Consequently, the invention as claimed is novel.” (page 3 of the September 17, 2007 response, emphasis added).

In the October 4, 2007 Office Action, the Examiner acknowledged the election of Group I with traverse, and deemed the restriction requirement final. In so deciding, the

Examiner remarked that the limitations of “bending element” and “radius of curvature” are known in the art, and again specifically cited the ‘892 patent. The Examiner stated that:

[The ‘892 patent] discloses a bending member for pressing the leading end of the anode scrap (Claim 8 of ‘892) and [that] the bending angle should be 10° to 45° (Col. 8, line 26-34).

Applicants respectfully disagree that the limitations of “bending element” and “radius of curvature” are disclosed in the ‘892 patent, for the reasons set forth below.

Claim 8 of the ‘892 patent recites that the bending member is “operable to press the leading end of the anode scrap” (emphasis added). Furthermore, at column 8, lines 26-34 of the ‘892 patent, it is stated:

The bending angle and length of the bent portion **1b** of the anode scrap sheet **1** may change depending upon the construction of the chute or the like, but according to the inventors’ experimentation, the bending angle should be preferable from 10° to 45°, and more preferably from 20° to 45°, whereas the bending length should be preferably from 50 mm to 200 mm, and more preferably from 100 mm to 200 mm.

In contrast to what is described in the ‘892 patent, claim 1 as originally filed recites “a bending element for bending the anode . . . the anode having a radius of curvature of about 1,000 – 3,000 millimeters.” Claim 14 as originally filed recites “bending the anode essentially completely by means of a bending element” and “bending the anode in the bending element so that the obtained radius of curvature for the anode is essentially 1,000 – 3,000 millimeters.”

Original claims 1 and 14 of the instant application outline a bending element which bends the anode such that it becomes curved. In contrast, the ‘892 patent describes bending merely portion of the anode, not the entire anode. Furthermore, the ‘892 patent describes that bending results in two straight portions of the anode, with no curvature whatsoever (see, e.g., element **1b** in Figure 7 of the ‘892 patent).

Accordingly, it is applicants' position that the '892 patent discloses neither a "bending element" nor a "radius of curvature" as set forth in claims 1 and 14 as originally filed. Applicants therefore respectfully assert that the requirements of PCT Rule 13.2 are met, namely that the two groups of claims involve the same or corresponding special technical features, and that these special technical features define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

Applicants respectfully request withdrawal of the requirement for restriction and rejoinder of the claims of Group II (claims 14-18) for examination on their merits.

#### AUTHORIZATION

Pursuant to 37 C.F.R. § 1.181(d) and 37 C.F.R. § 1.144, applicants believe that no fee is due for the filing of this petition. The Commissioner is hereby authorized, however, to charge any additional fees which may be required for consideration of this petition to Deposit Account No. **13-4500**, Order No. 4819-4735.

Respectfully submitted,  
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